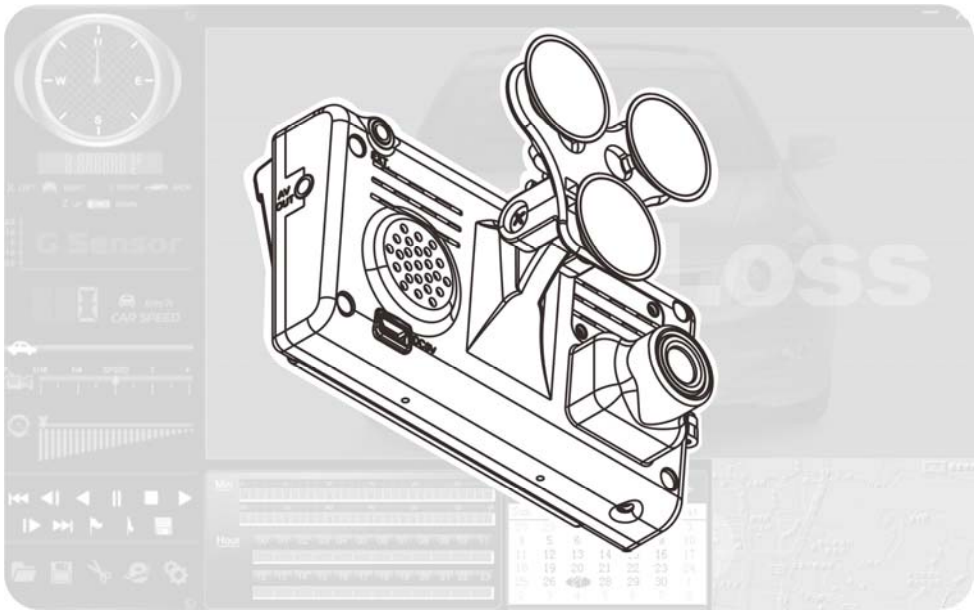
FULL HD 5M Megapixel
Vehicle Video Recorder User Manual



2011 OCT V1.0

Two types for this Model:
Type A build-in GPS function
Type B without GPS function

Index

A. Feature Description 1

B. Schematic diagram of the installation steps.....2

C. Specification 3

D. Product Dimensions,Panel Functions and remote control description 5

E. Main menu operating description.....7

Main menu table switch 7

Camcorder mode setting 15

Camera mode setting 18

F. Play the recorded file.....23

Camcorder mode.....23

Camera Mode.....25

G. Software operating instruction 28

H. Formatting memory card.....34

A. Feature Description

- Built-in Full HD 5M CMOS Sensor. Viewing angle approx. 105 degrees.
- Easy installation. Suitable for all types of vehicles use.
- Equipped with 3 inch TFT LCD screen providing a platform for composing and playing back footage.
- Video record outside driving conditions and audio record inside the vehicle simultaneously.
- G-sensor, GPS and Image data are recorded and playable on client software. (GPS only for Type A model)
- Image data is securely stored on SD Card (read/write speed 15MB/s), support Max. 32 GB, and sudden disconnection from unexpected shock is completely prevented.
- G-sensor sensitivity can be adjusted according to vehicles and road situations. When detect a strong shock, system will start emergency recording and keep the files without being overwritten.
- The most user-friendly player software, easy to operate.
- With full time/date record, can be displayed in screen directly.
- Provides complete event log table, easy to search recorded files.
- Provides a variety of recording video formats and number of frames to select.
- Built-in two way High Sensitivity automatic gain control Microphone.

B. Schematic diagram of the installation steps

Two types of brackets installation for selection, Suction-cups type and stick-holder type.

Suction-cups type

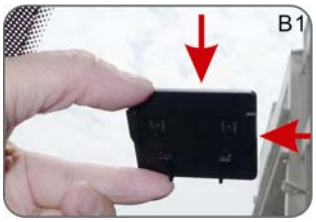
A1. Make the bracket facing upward

A2.Assemble the suction cups

A3.Power line installs into USB port.

A4. Set up appropriate position by suction cups and fix power line.

Stick-holder type



B1. Remove 3M sticker and adjust the best position to posted closely.

B2+B3. Stuck bracket into latch and fix power line.

Plug in the cigarette adapter.

Installation completed

Machine on screen display

Blue light flashing: GPS positioning.

Blue light on: GPS positioning ready.

(GPS function only for Type A)

Green light: Power.

Red light: Recording.

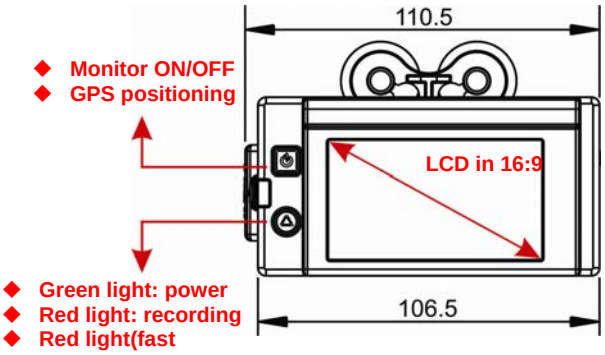
C. Specification

Items	Description
Chipset	Ambarella H.264 image compression chip
Sensor Device	Full HD 5M CMOS Sensor。
View Angle	View angle approx. 105 degrees.（Option for M12 Len model）
Display	LCD 3 inch 16:9 monitor
Voltage	Start at 5V±5%；650mA, Remark: Please use 5V±5%, 1A Cigarette lighter adapter. The machine needs 4.8v to start.
Operating temperature	-10℃~ +70℃ (Inside vehicle)
Storage device	For the performance issue, use SanDisk SD card Class 6 or above read/write speed 15MB/s recommend. (min capacity 4G, Max 32G)
Recording frame and content	**TYPE A:** 1920x1080 (Full HD1080P/ 30F) 1280x720(HD720P/ 60F and HD720P/ 30F). Auto record when power up system. Recording frame: 30fps/60fps (NTSC/PAL) only select one.
	TYPE B: 1920x1080 (Full HD1080P/ 30F) 1280x720 (HD720P/ 30F and HD720P/ 30F). Auto record when power up system. Recording frame: 30fps (NTSC/PAL) only select one.
Camera mode	Resolution 3M, 5M, 8M(manual/ G-sensor/Timer)
Recording content	**TYPE A:** Date, time, image, sound, G-Sensor data , GPS data
	TYPE B: Date, time, image, sound, G-Sensor data , GPS data (with external GPS Mouse only)
Recording format	Specific format for player software(recording mode).
Microphone	Build-in Dual High Sensitivity Microphone.
Input device	(a) Enforced recording button, monitor ON/OFF button, Remote controller (b) GPS Mouse external extension hole.
Out Device	(a) TV-Out (1 Vp-p composite video output, 75 ohms), two kind of system: NTSC/PAL (b) Green light: Power / Red light: Recording (c) Blue light: GPS 3D Positioning(No lighting for TYPE B without external GPS mouse) (d) Mini USB for PC connection
Time Setup	Auto-calibrating by GPS signals. If GPS is not available, the built-in clock will be used.
G-Sensor	Build in Internal 3D G-Sensor

Accessories	(a) 5V cigarette Power adapter (b) Remote controller (c) Product CD (d) Suction cup bracket (e) Bracket holder (f) Quick user guide
optional	(a) 16G_Class 6 SD card. (b) 5M RCA Video output cable (c) External GPS Mouse (4P Phone Jack Connect)
Important Notice	(a) GPS positioning speed will be affected by weather, window films, etc. Windows film may contain metal substances and have impact on GPS positioning. (b) The light indicator distinguish between day and night mode, When power-on it will enter night mode first. (c) Machine must be installed in the area that wipe can be reached. (d) SD card must be formatted by machine or client software first to be used properly. (e) After SD card formatted, user needs to set up time zone data from OSD. Or Auto-calibrating by GPS signals directly, then the video file can be recorded the right time data. (f) Due to power consumption is over standard USB (signal output 500mA), when connected to the computer power supply, please use other power line. (g) For power cable installing, try not to bypass above the machine(GPS patch), Set the cable to bracket latch then wiring to the car ceiling, it can receive the GPS signal better. (h) The machine reserved for the RTC battery cover for easy changing battery (CR1220). (i) In camera mode, the screen will display in 4:3 mode, the resolution will be (2592x1944/5M)，Use different lenses, the picture will be a slight cover corner angle phenomenon.

D. Product Dimensions,Panel Functions and remote control description

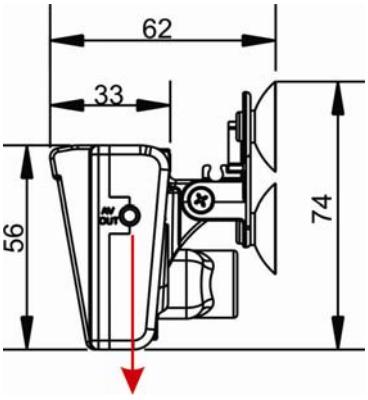
UNIT:mm



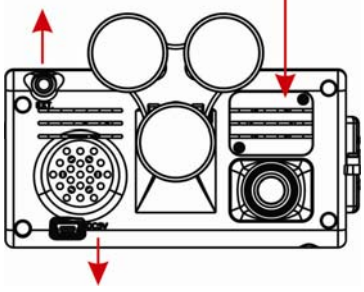
- Monitor ON/OFF
- GPS positioning

- Green light: power
- Red light: recording
- Red light(fast flashing)：Enforced recording

★GPS positioning light: only for Type A model



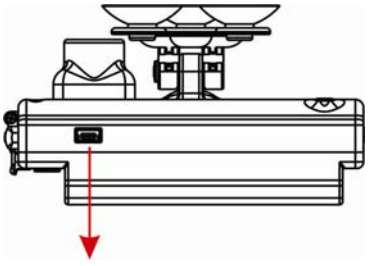
Video/Audio output



GPS Mouse extension hole

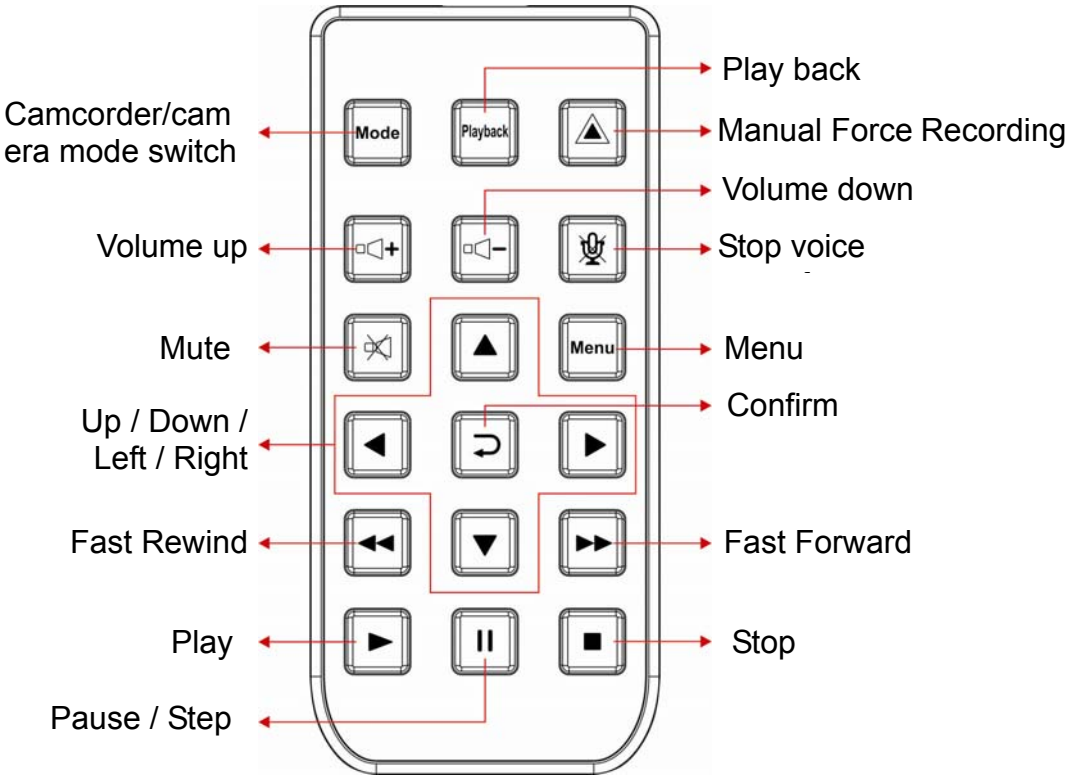
RTC battery cover.

DC5V power input



Mini USB FOR PC

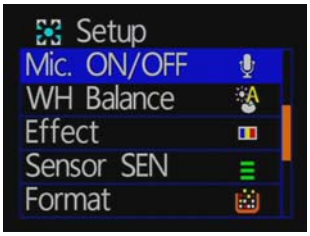
Key mapping table for remote controller:



E. Main menu operating description

Main menu table switch

Set 1 / 3



Set 2 / 3

Set 3 / 3

★Total three setting pages; click on the settings page, you can conduct more detailed and related setting (For detailed setting, please refer to the settings page instructions).

First stage Remote control keys description

Moving menu options	[Left/Right Key]
Selecting items	[Up/Down Key]
Selected the item, confirm setting	[Confirm key]
Enter index, back to previous menu	[MENU key]

Main Menu Settings

Click Menu button on the remote control to enter the main menu setting page.

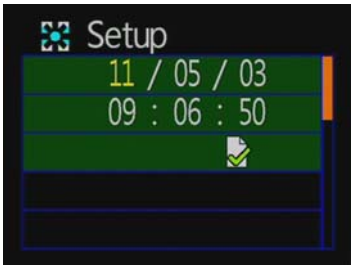
After entering the main menu settings page, press the ▲▼ button on the remote control, choose the Settings page; then click ↵ on the remote control to enter the settings page.

To exit the Settings page, click on the remote control Menu you can choose to leave and return to the settings page.

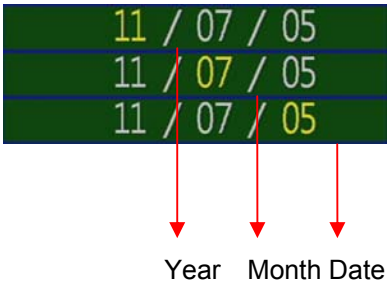
◆ Language setting

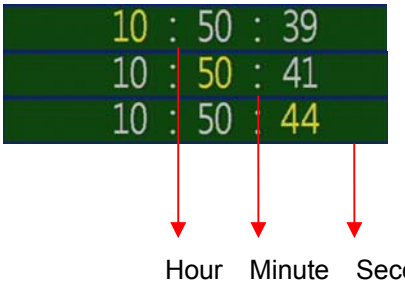
★Support 13 languages: English / French / German / Italian / Japanese / Korean / Portuguese / Russian /Simplified Chinese / Spanish / Traditional Chinese / Turkish / Dutch

◆ Date / Time



Menu Options	[Up/Down Key]
Selecting Options	[Left/Right Key]+ [Confirm key]+ [Up/Down Key]
Selected the item Confirm setting	[Confirm key]
back to previous menu	[MENU key]





- Date / time: Press the remote control button, enter the date / time setting
- Press the remote control key, move to the year / month / day / hour / minutes / seconds

- Press the remote control button, can change the set of year / month / day / hour / minutes / seconds
- After setting and then press remote control key to the Select button and then press to confirm saving.

★Year Setting: to set behind 2 digits of AD year, to set hour for the 24-hour.

◆ **Time Zone**

★selecting the proper time zone for your position

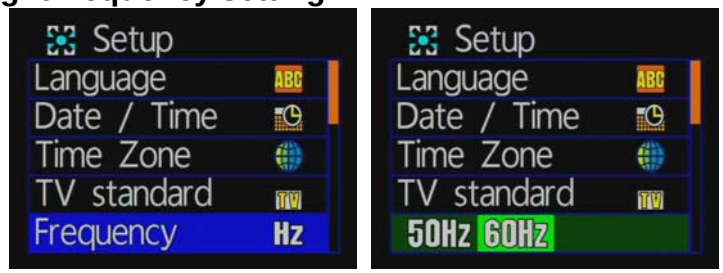
◆ **TV standard**

★NTSC/ PAL for selecting

- TV output format: click the remote control button to enter the TV output format settings page.
- Press the remote control key, select the video output format of driving recorder.
  For example: NTSC PAL → NTSC PAL, after setting up and then press the remote control button to save the settings.

★TV output format, according to different national systems using the input format for the TV set, the system is preset to NTSC (Taiwan TV image is NTSC). When input the image causing TV screen which appears black and white, beat, we can switch to PAL TV screen to check returning to normal status.

◆ **Light frequency setting**



★50Hz/ 60Hz for selecting

- Light frequency: press the remote control button, enter the light frequency page to do the setting.
- Remote control button, can change the light frequency setting.
  For example: 50Hz 60Hz → 50Hz 60Hz, after setting finished, press the selected remote control key to save the settings.

★Light frequency: according to different power frequency flicker and, thus, the wavelength, the wavelength is caused by the human eye brightness of the most important factor; general, the higher the frequency of light, the brighter the ambient feel. As the use of Taiwan's general power frequency 60HZ, 60HZ recommended to set the frequency for the light source is more suitable environment in Taiwan.

◆ **Microphone switch**

★OFF/ ON

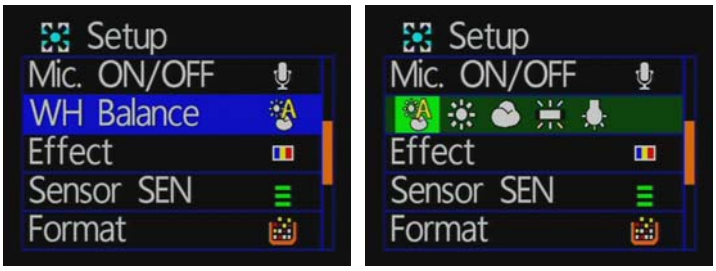
: microphone off : microphone on

- Microphone: press the remote button, into the microphone switch pages.

- Press the remote control key can be turned on or off the microphone.
- Setup is complete, press the remote control key to store settings.

★Microphone to record the sound of inside vehicle information, if concern about personal privacy information, proposed close microphone function (off microphone function, converting the image files to video without sound state).

◆ **White balance**



★Five ambient light option for selecting Auto / Daylight / Cloudy / Fluorescent / incandescent light

: Automatic mode
: Daylight mode
: Cloudy mode
: Fluorescent mode
: Incandescent mode

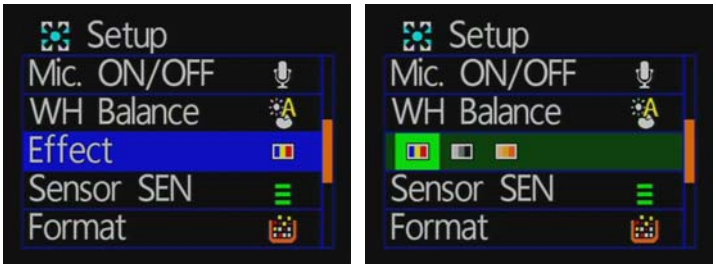
- White balance, press remote button, into white balance settings page.
- Remote control key to select different white balance mode.
- Setup is complete, press the remote button to save the setting.

★White balance mode is set, regardless of the state in the camera or photography will open automatically.
★When take recording, suggest white balance set to automatic mode in order to open the white balance automatically to avoid the screen unclear.

The following table shows picture taken in various white balance mode.

Icon	Description	Picture	Application instructions
	Auto		The machine set automatically
	Sunlight		For fine weather
	Cloudy day		For cloudy, dark or twilight
	Fluorescent		For warm white, cool white (3-wavelength) fluorescent lighting
	Incandescent		For incandescent lamps and bulb-type 3-wavelength fluorescent

◆ **Effects**

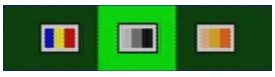


★Color / B & W / Retro color

- Effects: press the remote button, enter the effects settings page.
- Press the remote control button to select the effect model.
- Setup is complete, press the remote button to save the settings.

★Effects model setting, whether in photography or video mode it will automatically open.

The following table shows picture taken in various effect mode.

Icon	Description	Picture
	Color mode	
	Black mode	
	Retro mode	

◆ **Sensing sensitivity**

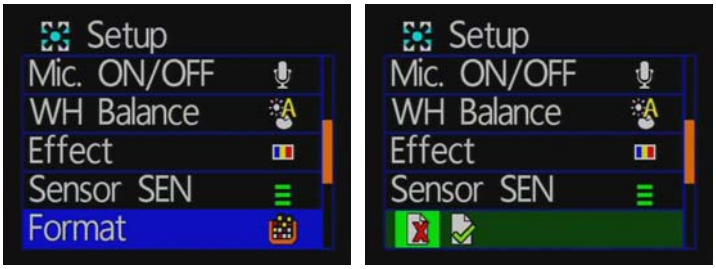
★Caution: You can adjust the sensitivity level (more number of green bars stands for higher sensitivity)

: Low : Normal : High

- Sensor sensitivity: press the button, enter the sensor sensitivity settings page.
- Press the remote control key, select the sensor sensitivity level.
- Setup is complete, press the button to save the settings

★Sensor sensitivity means the sensitivity of the reaction: when passing through a dark place, the vehicle turned on the white balance mode; when the higher sensitivity settings, after passing a little dark as long as it will open automatically, more likely to cause excessive light up the screen.

◆ **Format**



★cancel format / confirm format

: Cancel format : Confirm format

- Format: press the button, enter the format settings page.
- Press the remote control button, choose whether to format.
- To confirm the format, press the button to do the SD card format.

★When you click “cancel the format:, it will return to the main Settings page.

★When determining to format the SD card, all data in the SD card will be erased, please back up any old data in advance to avoid old data be erased.

★A new SD card must do the formatting operation first and then start the recording.

◆ **Restore factory settings**

★cancel default setting / confirm default setting

: Cancel to restore factory settings

: confirm to restore factory settings

- Restore factory settings: press the remote control button, enter the restore factory settings page.
- Press the remote control key, whether you want to

restore to factory settings.

- Confirm to restore factory settings, press the remote control button, to return to the original setting

★When click “cancel to restore factory settings”, it will return to the main Settings page.
★When confirm “confirm to restore factory settings”, it will return to the factory value settings; when return to factory value, you could enter main menu to configure the related settings again.

Camcorder mode setting

Remote control keys description

Moving menu options	[Up/Down Key]
Selecting items	[Left/Right Key]
Selected the item, confirm setting	[Confirm key]
Enter index, back to previous menu	[MENU key]

Camcorder mode settings: press the remote control key to enter the camcorder settings page. Enter the main page, press the remote control key to select the camera or camcorder. Enter camcorder mode main page, press the remote control key to select the setting. Press the remote control key to enter the settings page. If leaves the settings page, press the select button on the remote control, you can leave and return to the camcorder or the main page.

★Camera mode setting is total one page; Click the Settings page to enter more detail setting related (set for details, see the description of the settings page)

◆ **Video resolution setting**

- Camcorder mode settings / image resolution, press remote control button to enter image resolution setting page.
- Press the remote control key to choose variety of image resolution.
- Setup is complete, press the remote control button to save the settings.

TYPE A:

Three video resolution modes for selecting:
1920 * 1080P (30): 1920 * 1080 screen resolution, 30 frames per second.
1280 * 720P (60): 1280 * 720 screen resolution, 60 frames per second.
1280 * 720P (30): 1280 * 720 screen resolution, 30 frames per second.

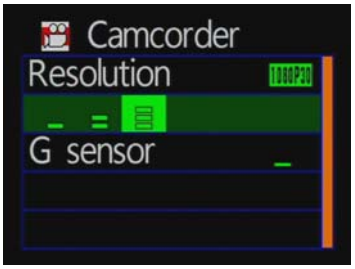
TYPE B:

There are two kinds of image resolution mode selectable:
1920 * 1080P (30): 1920 * 1080 screen resolution, 30 frames per second.
1280 * 720P (30): 1280 * 720 screen resolution, 30 frames per second.

Icon	Description	Picture
	1920x1080P(30)	
	1920x720P(60)	

	1280x720P(30)	

◆ **Quality settings**



★Caution: You can adjust the video quality level (more number of green bars stands for higher quality)

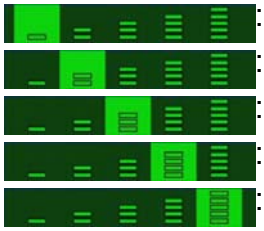
: Low : Normal : High

- **Set the camcorder mode / quality:** press the remote control button to enter the quality settings.
- Press the remote control key to select the video quality.
- Setup is complete, press the remote control button to save the settings.

★Video quality setting higher, the better image quality.

◆ **G-sensor setting**

★Caution: You can adjust the G-sensor sensitivity level (more number of green bars stands for higher sensitivity)
★When emergency record is triggered, it will keep around 3 minutes emergency recording and keep the files without being overwritten

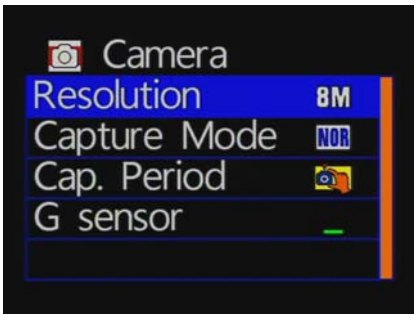


: Very low
: Low
: Normal
: High
: Very high

- Camcorder mode settings / G-sensor: press the remote control button to enter the G-sensor settings.
- Press the remote control button to select the sensitivity of G-sensor.
- Setup is complete, press the button to save the settings.

★Note: the higher the sensitivity on behalf of gravity (G) the more sensitive the sensor, the more likely trigger mandatory recording; every trigger mandatory recording, before and after the accident will force to save 3 minute video and not be covered (when G-sensor trigger recording, all the lights will become darker).

Camera mode setting



Remote control keys description

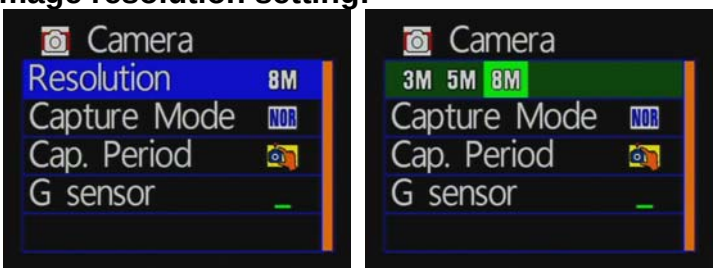
Moving menu options	[Up/Down Key]
Selecting items	[Left/Right Key]
Selected the item, confirm setting	[Confirm key]
Enter index, back to previous menu	[MENU key]

Set the camera mode: press the button on the remote control to enter the camera settings page.

To set directory on the main page, press the select buttonon the remote control to select the camera or photograph; Into the camera mode of the main page, press the remote control key selected to choose the Settings page and press the remote control to enter the setting page; to leave the settings page, press the button on the remote control, you can leave and return to the camera or main setting page.

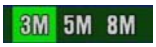
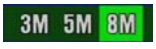
★Camera mode is total one page; Click Settings page to more detail settings (the detailed settings, see the setting instructions on the settings page).

◆ **Image resolution setting:**



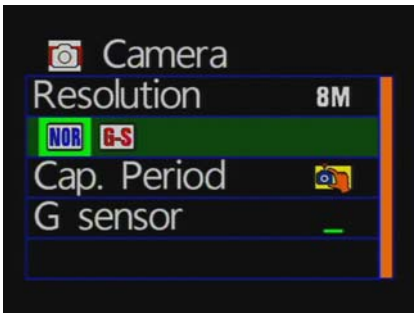
- Camera mode / image resolution: press the remote control button to enter the setting page of image resolution.
- Press the remote control button to select different image resolution.
- After setting, press the remote control key, to store settings.

★There are three image resolution modes selectable:
8M: 3200 * 2400 screen resolution, picture quality is 800 million pixels.
5M: 2592 * 1944 screen resolution, picture quality is 500 million pixels.
3M: 2048 * 1536 screen resolution, picture quality is 300 million pixels.

Icon	Description	Picture
	3M: 300 million pixels	
	5M: 500 million pixels	
	8M: 800 million pixels	

★When the higher image resolution, the greater the amount of data stored in the file.

◆ **Capture mode setting**



NOR: Normal mode

G-S: G-Sensor mode with three pictures once

- Camera mode / capture mode: press the button to enter the capture mode setting page.
- Press the remote control keyto select the capture mode.
- After setting, press the button to save the settings.

★When the capture mode NOR selected, to set capture picture time from the camera cycle option.

◆ **Camera period setting**

- Camera mode / capture period: press the remote control buttonto enter the settings page to set the period setting.
- Press the remote control buttonto select period of time to capture.
- Setup is complete, press the remote button to save the settings

★ When the capture mode NOR selected, the option to set the camera period setting.
★ Photographic period: 30 seconds / 1 minute / 5 minutes / 30 minutes, fixed shot once.

◆ **G-sensor setting**

: Very low

: Low

: Normal

: High

: Very high

- Camera mode / G-sensor, press the remote control button to enter the page to set the G-sensor.
- Press the remote control button to set the sensitivity of G-sensor.
- Setup is complete, press the remote button to save the settings.

★Note: the higher the sensitivity on behalf of gravity (G) the more sensitive the sensor, the more likely trigger mandatory photography;
Each time the force shooting is triggered, it will shoot three images once.

F. Play the recorded file

Direct playback on machine side

Build-in accelerometer, the system automatically determine the level of the screen visualization, and make the screen self-rotated to normal position.

Camcorder mode

Play back file screen

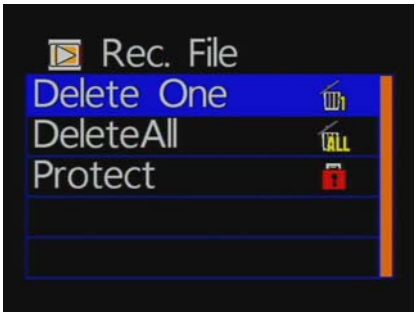
File selecting screen

Multi-files selecting screen

- Press button on remote controller under LIVE recording mode to enter file playback menu.
- Press button to adjust before and after clips.
- Press button to play file.

★When in the playback file page, default is as single file mode. However, you can press the button to enter into six separate screen page, and then press the button to select the file you want to play. When you select OK, and then press the button to return to a single file for playback page.

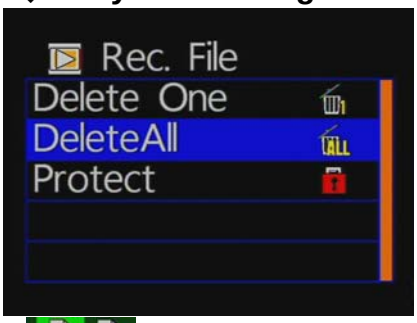
◆ **Playback settings - Deleting a single file**



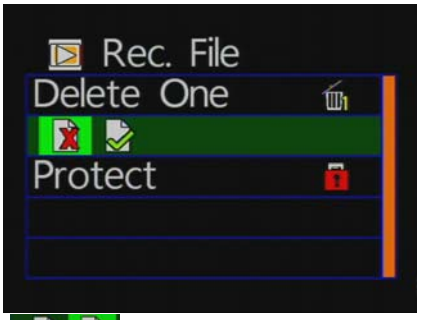
- For playback file setting, press Menu button to enter setup page, press ▲▼ button to move to delete one item, then press ↵ enter into deleting page.
- Use ◀▶ button moving to the file you want to delete, then press ↵ to start deleting.

★You must disable the protection function first in order to process the deleting procedures.

◆ **Playback settings- Delete All**



: Cancel delete all

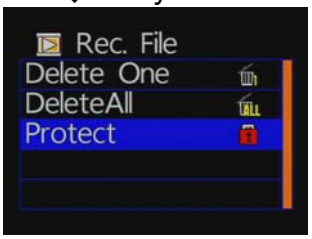


: Confirm Delete All

- Press Menu button to enter setup page, press ▲▼ button to move to delete all item, then press ↵ enter into deleting all page.
- Use ◀▶ button moving to you want to delete all files, then press ↵ to start deleting.

★You must disable the protection function first in order to process the deleting procedures.

◆ Playback file setting-protect



★Caution: When the picture has a lock-shaped icon indicates that the data in protection mode

- Press Menu button to enter setup page, press ▲▼ button to move to protect item, then press ↵ enter into protect setting page.
- Use ◄► button moving to you want to protect file, then press ↵ to start protect setting.

Camera Mode

- Under camera mode, press Playback button entering into photo playback page.
- Press ◄► button to select the file you want to play.
- Then press ► button to play.

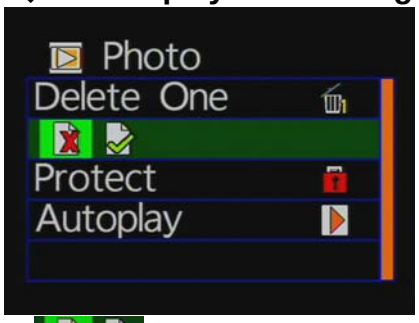
★When in playback page, press ↵ button to do Clockwise rotation of photo.

◆ **Photo playback settings-Delete one**

- Photo play setting, press Menu button entering into setting page.
- Press ▲▼ button moving to delete one item. Then press ↩ button to enter delete page.
- Press ◄► button to select the file you want to delete. Then press ↩ button to start deleting.

★ You must disable the protection function first in order to process the deleting procedures.

◆ **Photo playback settings-Delete All**



:Cancel delete all : Confirm delete all

- Photo playback settings, press Menu button enter setup page.
- Press ▲▼ button moving to delete all item. Then press ↩ button to enter delete all page.
- Press ◄► button to confirm delete all files. Then press ↩ button to start deleting all files.

★You must disable the protection function first in order to process the deleting procedures.

◆ **Photo playback settings-protect**

- Photo playback settings, press Menu button enter setup page.
- Press ▲▼ button to move to protect item, then press ↵ enter into protect setting page.
- Use ◀▶ button moving to you want to protect file, then press ↵ to start protect setting.

★Caution: When the picture has a lock-shaped icon indicates that the data in protection mode.

◆ **Photo playback settings-Autoplay**

★ 5 Sec duration per image / click menu to stop.

- Photo playback settings, press Menu button enter setup page. Press ▲▼ button to move to auto play item, then press ↵ enter into auto play setting page.
- When under Auto Play mode, about every 5 seconds to play the next photo. You can click the stop ■ button to return to photo playback page.

G. Software operating instruction

1, Remove SD card from card slot of host side
2, Put the SD card to the card reader
3, Connect card reader to the USB port of PC side
4, Choose the file to play: Execute “IBoxPlayer.exe” , which is located in the product CD folder, Screen shown as below. Choose “Open the document” , and choose the file of memory card or hard disc and then click “Play key” to do playback；when using playback. click key to show the historical routing from Google map.
◎Note: To perform this software, please install Direct X 9.0 or above.

Viewer interface description

1. Operating Interface Description:

1		Return to last file key
2		Forward playback
3		Playback key
4		Pause key Go to next file key
5		Stop key
6		Play key
7		Forward playback
8		Rearward playback
9		Mark starting point of back up file
10		Mark ending point of back up file
11		Backup the marking file
12		Open document, select the file to play
13		Backup the current playing file
14		Snapshoot tool
15		Google map
16		Configuration, Set machine-related settings

2. Player Interface Description:

- Show latitude and longitude position

- G-sensor : Impact sensor analyzer, forced saving the accident video before and after 1 to 3 minutes, not covered by other new files, protect the integrity of the incident video.

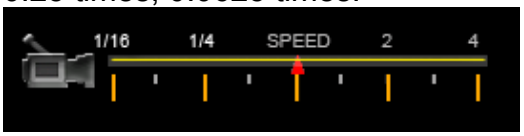
  X: Induct about level of vehicles moving
  Y: Induct around level of vehicles moving

Z: Induct Height fluctuation around level of vehicles moving

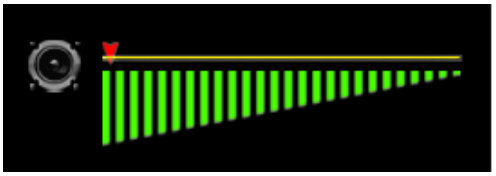
- Play BAR
  Press left button of mouse and move around to pull BAR with fast-moving.

- Driving Speed

- Playback speed
  Fast forward with 2 times or 4 times, and playback with 0.25 times, 0.0625 times.

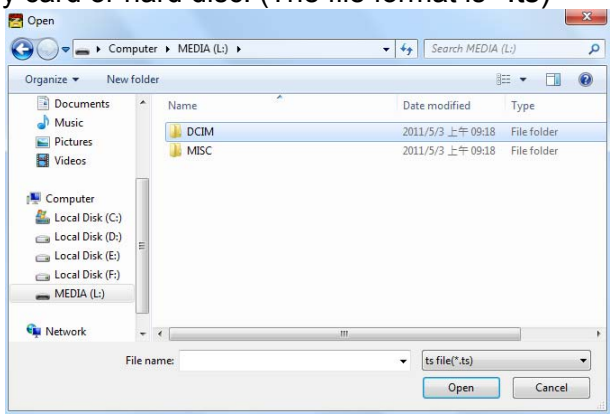


- Volume control



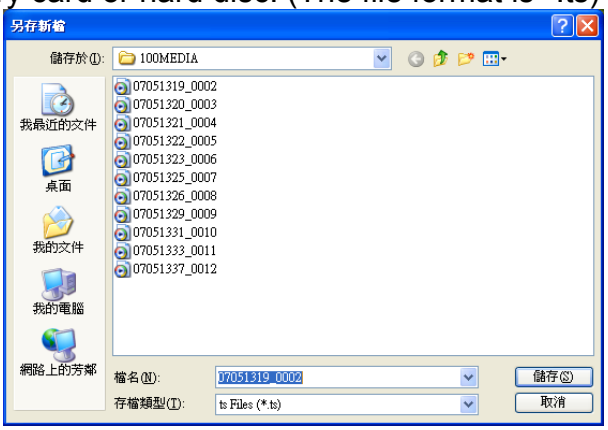
■ Select the file to playback

Select “ Open the document” , and then choose the file of memory card or hard disc. (The file format is *.ts)



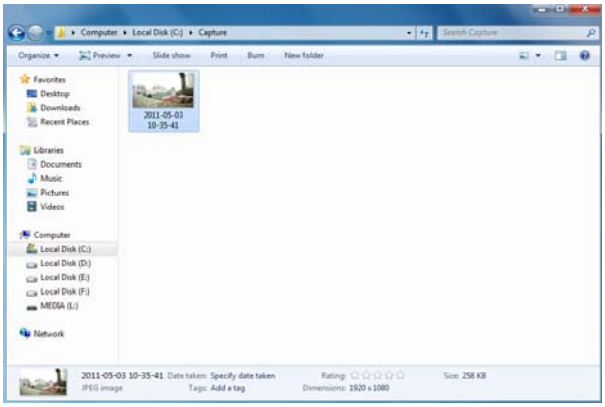
■ Save the playing file

Select “Save the playing file” , and then choose the file of memory card or hard disc. (The file format is *.ts)



■ Snapshoot Tool

Play record from SD card first and then use Snapshoot tool to capture the screen. When select Snapshoot tool, it will appear the following window. (The picture of display screen will save in capture storage folder path.)

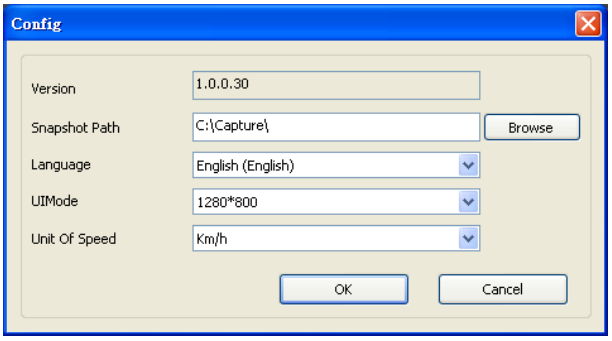


■ Google Map

Click and then appear the window of Google Map to view the tracking of Vehicle. (This function needs to connect Internet.)

■ Related settings

Software version related information and SD card data storage settings.



(a) Storage path of Snapshot: the location to save images in the computer
(b) Language: select language settings of playback software. (The settings will work after re-open the software)
(c) The mode of User Interface: Set the display mode of host. (To change the configuration option, it must insert SD card into the Vehicle Video Recorder). It provides 3 different resolutions for selecting: 960x600, 1280x800, 1920x1080.

■ Playback date selection

- Playback selecting by minutes

After open the playback file, Time axis will display a red box, Click the red box to quickly select and play the selected time.

- Playback selecting by Hours (24-hours)

After selected the time axis, it will display the red box of minutes axis, Click the red box to quickly select and play the selected time.

- Playback selecting by date

Open the player, the "date table" will show date today with gray-brown display. When you click on the file for playback, If the SD card has recorded file, then S the date will display with a red box, that means it has the data to play back.

H. Formatting memory card

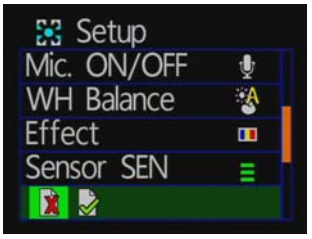
When should you need to format the SD card?
When you purchase a new SD card, you have to format it for vehicle video recorder to record properly.

Procedures for new SD card formatted as follows:

1. Insert SD card into the SD slot of Vehicle Video Recorder and then open the menu. Find the format option and then begin to format SD card.

Follow the steps, open the cover, insert SD card.
(Please check SD card position and make sure SD card is unlock), put the cover back.

2. Connect power cable to machine, use remote controller to enter index menu and select format operation.

Step 1	Step 2	Step 3
		

3. After formatting is completed, leave the index menu and back to live screen. Then the SD card formatting is done and ready to use.